

REMARKS

Summary of Office Action

As an initial matter, Applicants note with appreciation that the Examiner has withdrawn all claim rejections set forth in the previous Office Action.

Claims 30-32 and 39 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Murayama et al., U.S. Patent No. 5,633,070 (hereafter “MURAYAMA”) in view of Smith et al., GB 2 186 233 (hereafter “SMITH”) and in view of Feret, U.S. Patent No. 5,012,801 (hereafter “FERET”).

Claims 33, 34 and 36 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of FERET and further in view of Haffner et al., U.S. Patent No. 6,045,900 (hereafter “HAFFNER”).

Claims 35 and 38 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of FERET and further in view of Morman et al., U.S. Patent No. 5,932,497 (hereafter “MORMAN”).

Claims 40, 41, 43 and 44 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN.

Claims 42, 45 and 46 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN and further in view of HAFFNER.

Claim 47 is newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN and further in view of FERET.

Claims 48 and 49 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN and further in view of Wu, U.S. Patent No. 5,422,172 (hereafter “WU”).

Claims 50-52 and 54 are newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of FERET and further in view of MORMAN.

Claim 53 is newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN and further in view of HAFFNER.

Claim 55 is newly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN and further in view of WU.

Response to Office Action

Reconsideration and withdrawal of the rejections of record are respectfully requested in view of the foregoing amendments and the following remarks.

Response to Rejection of Claims 30 to 39 under 35 U.S.C. § 103(a)

Independent claim 30 and dependent claims 31, 32 and 39 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of FERET. The rejection essentially alleges that MURAYAMA discloses the elements recited in independent claim 30 with the exception of the textile sheet being macroembossed and the polymer film being microembossed. In this regard, the rejection asserts that SMITH teaches “that it is old and well-known in the art to macroemboss ... a textile sheet (non-woven fabric) and a polymer film

for the purpose of bonding the film to the non-woven fabric to form a laminate for use in a bandage and provide a continuous pattern of embossing on the laminate ...” and that FERET teaches “that it is old and well-known in the art to microemboss the polymer film of a wound dressing ... for the purpose of giving the visual appearance of a plain woven taffeta fabric ... and enhance the conformability of the film on irregular surfaces and reduce the tendency of the film to curl or roll up in use and provide a reduced surface contact area”. The rejection further alleges that it would have been obvious to one of ordinary skill in the art “to have modified the laminate in Murayama et al. to have the textile sheet (non-woven fabric) and the polymer film macroembossed as suggested by Smith et al. in order to bond the film to the non-woven fabric to form the laminate and provide a continuous pattern of embossing on the laminate” and that it would also have been obvious to one of ordinary skill in the art “to have modified the polymer film in Murayama et al. to be microembossed as suggested by Feret in order to give the visual appearance of a plain woven taffeta fabric, enhance the conformability of the film on irregular surfaces and reduce the tendency of the film to curl or roll up in use and provide a reduced surface contact area”.

Applicants respectfully traverse this rejection. In particular, it is submitted that there is no motivation whatsoever to combine the teachings of MURAYAMA and SMITH because these documents relate to two completely different components of an adhesive bandage. Specifically, MURAYAMA discloses a backing sheet for an adhesive bandage. This backing sheet comprises a nonwoven fabric which is intended for coming into contact with the skin. This fabric carries an adhesive on the skin-contacting side and has laminated thereto a polymeric film on the side which is opposite to the skin-contacting side as a water-proofing layer. For example, col. 1, lines 8-17 of MURAYAMA states (emphasis added):

This invention relates to an adhesive film for adhesive bandage and an adhesive bandage using the adhesive film for adhesive bandage. More specifically, this invention relates to an adhesive film for adhesive bandage having water vapor permeability and water proofing property, wherein a nonwoven fabric having air permeability is used as a backing sheet of an adhesive bandage and a film having water vapor permeability and water proofing property is laminated on the nonwoven fabric, and to an adhesive bandage using said adhesive film.

In contrast to MURAYAMA, SMITH relates to absorbent laminates, and more particularly to laminates for use as the absorbent structure or absorbent facing of products which are intended to absorb body fluids (page 1, lines 5-8). For example, SMITH states at page 1, lines 44-56 (emphasis added):

We have now found that an absorbent laminate having highly advantageous properties may be formed by superimposing a perforated plastics film on a fibrous web having a proportion of thermal bonding fibres therein, and embossing the two layers in a pattern which extends over at least some of the apertures in the film and over at least some of the areas of the film therebetween. This procedure results in the formation of a laminate in which the fibres of the absorbent layer are compressed in the region of at least some of the apertures in the plastics film. However, in contrast to the laminates disclosed in US-A-3,331,728 and 3,307,545, the interstices between the fibres of the absorbent layer in such compressed regions are found to be occluded to only a slight extent (if at all) by the material of the thermal bonding fibres. This has the advantage that the capillarity of the absorbent layer in such regions is greatly increased, so that liquid applied to the film side of the laminate is rapidly wicked away into the nonembossed regions of the laminate, giving reduced strike-through and reduced wet-back as compared with prior art laminates.

In other words, while MURAYAMA relates to a (water-proof but still moisture-permeable) backing sheet of an adhesive bandage, SMITH relates to an absorbent structure which may, *inter alia*, be used in a bandage. Accordingly, there is no reason for one of ordinary skill in the art who want to improve the backing sheet of MURAYAMA to consider SMITH.

At any rate, a closer comparison of MURAYAMA and SMITH reveals that the structures disclosed therein have nothing in common also from a structural point of view. For example, the plastic film of SMITH is required to be apertured or perforated (see, e.g., abstract and claim 1 of {P29695 00263459.DOC}

SMITH). In contrast, the film in the laminate of MURAYAMA is provided to make the nonwoven fabric water-proof (see, e.g., col. 2, lines 46-51 of MURAYAMA). It is apparent that, perforating the film of MURAYAMA as required by SMITH would defeat the purpose of providing the film of MURAYAMA (i.e., water-proofing).

It also is noted that according to MURAYAMA, a particularly preferred thickness of the polymer film is from 5 to 15 microns (col. 3, lines 4-6), whereas SMITH particularly recommends a (perforated) plastic film thickness of 55 to 60 microns (page 3, lines 14-20), i.e., at least about four times the thickness of the film of MURAYAMA.

Further, while in the case of the backing sheet of MURAYAMA it is the nonwoven fabric that is to come into contact with the skin, in the absorbent laminate of SMITH it is the (perforated) plastic film that will contact the skin (see, e.g., page 2, lines 63-64 and page 3, lines 14-15).

Applicants respectfully submit that for at least all of the foregoing differences between the teachings of MURAYAMA and SMITH, there is no motivation for one of ordinary skill in the art to combine the teachings of these documents.

Turning now to FERET, Applicants submit that there is also no basis for combining MURAYAMA with FERET. As set forth above, MURAYAMA relates to a laminate which is used as a backing sheet for an adhesive bandage. The laminate comprises a nonwoven fabric and a polymer film as a water-proofing layer on the side which is opposite to the skin-contacting side of the nonwoven fabric, which latter side carries an adhesive. In contrast, FERET relates to medical dressing comprising an embossed, thin polymeric film coated on one side with a medical grade, pressure-sensitive adhesive. The embossed film has a low coefficient of friction and is intended primarily for use as a blister dressing (see, e.g., abstract of FERET). Accordingly, while the film of

MURAYAMA merely serves to make a non-woven fabric (which is to contact the skin) water-proof, FERET relates to an (adhesive-coated) stand-alone film, i.e., a film which as such is to contact and protect the skin.

Additionally, the film of FERET is not primarily intended for use as a backing sheet of an adhesive bandage, but is to serve as a thin film dressing which is especially resistant to being unintentionally removed by frictional forces normally encountered in work or athletic activities (col. 5, lines 39-42) and for the prevention and treatment of skin friction blisters (see, e.g., claim 1 of FERET), respectively.

Further, even if one were to assume, *arguendo*, that one of ordinary skill in the art who wants to improve the water-proofing film of the backing sheet of MURAYAMA would be motivated to consult FERET, it is not seen why he or she would want to emboss the water-proofing film in the way it is taught by FERET. In this regard it is noted that the Examiner takes the position that it would have been obvious to one of ordinary skill in the art “to have modified the polymer film in Murayama et al. to be microembossed as suggested by Feret in order to give the visual appearance of a plain woven taffeta fabric, enhance the conformability of the film on irregular surfaces and reduce the tendency of the film to curl or roll up in use and provide a reduced surface contact area”.

Initially, Applicants point out that they could not find in FERET any mentioning of a “visual appearance of a plain woven taffeta fabric”. Clarification in this regard is respectfully requested.

Also, while the conformability of the film on irregular surfaces and the reduction of the tendency of the film to curl or roll up in use and the provision of a reduced surface contact area may be desirable properties of the stand-alone film of FERET, it is not seen that these properties are of any particular advantage for a film which is laminated to a non-woven fabric. In particular, it is

apparent that the properties of the laminate of MURAYAMA other than the water-proofing property are mainly determined by the properties of the nonwoven fabric.

Applicants submit that for at least all of the foregoing reasons, MURAYAMA in view of SMITH and in view of FERET does not render it obvious to provide the subject matter of independent claim 30 (and claims 31-39 dependent therefrom), wherefore the rejection of claims 30-39 under 35 U.S.C. § 103(a) is unwarranted and should be withdrawn, which action is respectfully requested.

Regarding dependent claim 36 Applicants note that the Examiner appears to again rely, *inter alia*, on col. 9, lines 5-7 of HAFFNER (see page 6, fourth full paragraph of the present Office Action). It is pointed out again that this passage of HAFFNER refers to the breathable intermediate layer 16 of the breathable barrier laminate 10, i.e., not to the outer base layer 12 thereof. Apparently, the outer base layer 12 is much more comparable to the polymer film of the laminate of present claim 36 than the intermediate film 16. In this regard, it is pointed out that HAFFNER does not appear to teach or suggest the feature recited in present claim 36 in the context of the outer base layer and thereby fails to render obvious the subject matter thereof. Applicants note that the Examiner has not commented on Applicants corresponding remarks set forth in the response to the previous Office Action.

Regarding dependent claim 39 Applicants additionally note that even if one were to assume, *arguendo*, that there is motivation to combine MURAYAMA with SMITH and FERET and that SMITH renders it obvious to macroemboss the nonwoven fabric of the laminate of MURAYAMA, transferring a macroembossed effect to a polymer film which is microembossed according to the teaching of FERET would clearly not be desirable because it would increase the surface contact area

and thus, the friction coefficient of the polymer film, contrary to what FERET wants to achieve. This is yet another reason why the subject matter of claim 39 is not rendered obvious by the documents relied on in the present Office Action.

In view of the clear facts set forth above Applicants refrain from commenting on the additional allegations regarding dependent claims 31-39 set forth in the present Office Action. It is pointed out, however, that Applicants' silence in this regard is by no means to be construed as an admission that these additional allegations are of any merit and in particular, that there is any motivation to combine the teachings of the various documents relied on by the Examiner in this regard.

Response to Rejection of Claims 40-49 under 35 U.S.C. § 103(a)

Independent claim 40 and dependent claims 41, 43 and 44 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of MORMAN. The rejection essentially alleges that MURAYAMA discloses all of the elements recited in independent claim 40 with the exception of the textile sheet being macroembossed and the thermoplastic polyolefin having the melt index and density recited in claim 40 and including a copolymer of ethylene and a C₄-C₁₀ α-olefin. In this regard, the rejection again alleges that SMITH teaches that it is well known in the art to macroemboss a textile sheet and a polymer film for the purpose of bonding the film to the non-woven fabric. The rejection further alleges that MORMAN teaches that it is well known in the art to have a polymer film of an elastic laminate comprising a thermoplastic polyolefin as recited in present claim 40 for the purpose of providing the laminate with a soft outer cover and good elastic and breathability properties.

This rejection is respectfully traversed as well. As pointed out above with respect to the rejection of independent claim 30, there are various reasons why one of ordinary skill in the art would not be motivated to combine MURAYAMA and SMITH. In the absence of a motivation to combine MURAYAMA with SMITH there is no apparent reason why one of ordinary skill in the art would want to macroemboss the nonwoven fabric of the backing sheet of MURAYAMA. MORMAN does not cure this deficiency. In fact, MORMAN does not appear to mention embossing of a material which is to be laminated to an (embossed) polymer film at all.

For the above reasons alone, the rejection of claim 40 and the claims dependent therefrom is without merit. In view thereof, withdrawal of the rejection of claim 40 and claims 41-49 dependent therefrom under 35 U.S.C. § 103(a) is respectfully requested.

Regarding dependent claim 42 Applicants additionally note that the Examiner appears to again rely, *inter alia*, on col. 9, lines 5-7 of HAFFNER (see page 10, fourth full paragraph of the present Office Action). It is pointed out again that this passage of HAFFNER refers to the breathable intermediate layer 16 of the breathable barrier laminate 10, i.e., not to the outer base layer 12 thereof. Apparently, the outer base layer 12 is much more comparable to the polymer film of the laminate of present claim 42 than the intermediate film 16. In this regard, it is pointed out that HAFFNER does not appear to teach or suggest the feature recited in present claim 42 in the context of the outer base layer and thereby fails to render obvious the subject matter thereof.

Regarding dependent claim 47 Applicants additionally note that even if one were to assume, *arguendo*, that there is motivation to combine MURAYAMA with SMITH and FERET and that SMITH renders it obvious to macroemboss the nonwoven fabric of the backing sheet of MURAYAMA, transferring a macroembossed effect to a polymer film which is microembossed

according to the teaching of FERET would clearly not be desirable because it would increase the surface contact area and thus, the friction coefficient of the polymer film, contrary to what FERET wants to achieve. This is yet another reason why the subject matter of claim 47 is not rendered obvious by the documents cited in the present Office Action.

Regarding dependent claim 49 Applicants note that at page 12, last paragraph, of the present Office Action the Examiner concedes that WU (or any of the other documents cited in the present Office Action) fails to teach a laminate showing no more than 10 % deformation in either the transverse direction or longitudinal direction after elongation by 100 % of its original length. In this regard, the Examiner again takes the position that “the permanent deformation would be readily determined through routine experimentation by one of ordinary skill in the art depending on the desired end results”.

Applicants again point out that it is apparent that for any use of an elastic laminate it is desirable that the permanent deformation after an elongation of the laminate is as low as possible, i.e., ideally 0 %. Accordingly, it does not even take routine experimentation to determine what the best permanent deformation for a given use of a laminate would be. Rather, the problem is to provide a material (elastic laminate) with a permanent deformation that is as low as possible. This is clearly not a matter of routine experimentation but requires inventive skill, as evidenced, for example, by the Examples of WU.

Specifically, as can be taken from the results shown in Table 7 of WU relied on by the Examiner, the permanent deformation after a 100 % elongation of the laminate of Example VIII of WU is significantly higher than 10 %, i.e., 26 % in machine direction and 30 % in cross direction. Moreover, none of the other laminates described in the Examples of WU (which include a variety of

materials as components of the laminates) shows a permanent deformation after 100 % elongation which is not higher than 10 %, either. Applicants note that the Examiner has not commented on Applicants corresponding remarks set forth in the response to the previous Office Action.

This is yet another reason why the subject matter of present claim 49 is not rendered obvious by any of the documents cited in the present Office Action.

In view of the clear facts set forth above Applicants refrain from commenting on the additional allegations regarding dependent claims 41-49 set forth in the present Office Action. It is pointed out, however, that Applicants' silence in this regard is by no means to be construed as an admission that these additional allegations are of any merit and in particular, that there is any motivation to combine the teachings of the various documents relied on by the Examiner in this regard.

Response to Rejection of Claims 50-55 under 35 U.S.C. § 103(a)

Independent claim 50 and dependent claims 51, 52 and 54 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MURAYAMA in view of SMITH and in view of FERET and in view of MORMAN. The rejection essentially alleges that MURAYAMA discloses the elements recited in independent claim 50 with the exception of the textile sheet being macroembossed and the polymer film being microembossed and the thermoplastic polyolefin having the melt index and density recited in claim 50 and including a copolymer of ethylene and a C₄-C₁₀ α-olefin. In this regard, the rejection relies on SMITH, FERET and MORMAN in essentially the same way as in the case of independent claims 30 and 40.

This rejection is respectfully traversed as well. Specifically, as set forth above, there is no motivation for one of ordinary skill in the art to combine MURAYAMA with SMITH and/or FERET whereas MORMAN fails to teach or suggest that a web material that is to be laminated to a (micro)embossed polymer film should be (macro)embossed. For this reason alone, the rejection of claim 50 and the claims dependent therefrom is without merit. In view thereof, withdrawal of the rejection of claim 50 and dependent claims 51-55 under 35 U.S.C. § 103(a) is respectfully requested as well.

Regarding dependent claim 53 Applicants additionally note that the Examiner appears to again rely, *inter alia*, on col. 9, lines 5-7 of HAFFNER (see page 15, last paragraph of the present Office Action). It is pointed out again that this passage of HAFFNER refers to the breathable intermediate layer 16 of the breathable barrier laminate 10, i.e., not to the outer base layer 12 thereof. Apparently, the outer base layer 12 is much more comparable to the polymer film of the laminate of present claim 53 than the intermediate film 16. In this regard, it is pointed out that HAFFNER does not appear to teach or suggest the feature recited in present claim 53 in the context of the outer base layer and thereby fails to render obvious the subject matter thereof.

With respect to dependent claim 54 Applicants additionally note that even if one were to assume, *arguendo*, that there is motivation for one of ordinary skill in the art to combine MURAYAMA with SMITH and FERET and that SMITH renders it obvious to macroemboss the nonwoven fabric of the backing sheet of MURAYAMA, transferring a macroembossed effect to a polymer film which is microembossed according to the teaching of FERET would clearly not be desirable because it would increase the surface contact area and thus, the friction coefficient of the polymer film, contrary to what FERET wants to achieve. This is yet another reason why the subject

matter of claim 54 is not rendered obvious by any of the documents cited in the present Office Action.

In view of the clear facts set forth above Applicants refrain from commenting on the additional allegations regarding dependent claims 51-55 set forth in the present Office Action. It is pointed out, however, that Applicants' silence in this regard is by no means to be construed as an admission that these additional allegations are of any merit and in particular, that there is any motivation to combine the teachings of the various documents relied on by the Examiner in this regard

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is again respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,
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